DOCUMENT RESUME

ED 393 108 CS 215 256

AUTHOR Nicholson, Mary-Jo S.
TITLE The Effect of Invented Spelling on Running Word Counts in Creative Writing.
PUB DATE Apr 96
NOTE 46p.; M.A. Project, Kean College of New Jersey.
PUB TYPE Dissertations/Theses - Masters Theses (042) -- Reports - Research/Technical (143)

EDRS PRICE MF01/PC02 Plus Postage.
DESCRIPTORS Comparative Analysis; *Creative Writing; *Invented Spelling; Primary Education; Teaching Styles; Whole Language Approach; *Writing Apprehension; *Writing Attitudes; Writing Research; Writing Skills
IDENTIFIERS *Word Counts

ABSTRACT

A study compared the progress of children encouraged to use inventive spelling with those encouraged to use traditional spelling in their creative writing. It was hypothesized that there would not be a significant difference in the writing samples produced in terms of their length or degree of elaboration. Participants were two second-grade classes from a suburban school district. The classroom teachers had different styles of teaching but taught the same weekly spelling list from a spelling text. The control sample was taught through a traditional teaching style. The experimental sample was taught by a whole language method. Also, in the experimental sample, inventive spelling was encouraged with creative writing. The control sample used a conventional spelling method in creative writing. Each group was given 15 minutes to write as much as they could about their December vacation. Results showed that the inventive spelling group were considerably more prolific; their average word count was almost twice that of the other group. It was noted, in addition, that inventive spelling students were more relaxed, not concerned with spelling every word correctly and were willing to take risks. Their ideas appeared to flow more easily. Students who used the traditional spelling method appeared to be more concerned with spelling every word correctly and found themselves inhibited in expressing themselves. The study's hypothesis was rejected. (Contains a table, a related literature review, and 27 references. Appendices contain running word counts.) (TB)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

ED 393 108

The Effect of Invented Spelling on Running Word Counts in Creative Writing

PERMISSION TO REPRODUCE AND DISSEMINATE THIS MATERIAL HAS BEEN GRANTED BY
M. Nicholson
TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

by

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)
☑ This document has been reproduced as received from the person or organization originating it.
☐ Minor changes have been made to improve reproduction quality.
• Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

Mary-Jo S. Nicholson

In partial fulfillment of the requirements

for the Master of Arts

Kean College of New Jersey

April, 1996

CS215256

BEST COPY AVAILABLE

ABSTRACT

This was a study of two suburban second grade classes. They were given the same creative writing assignment, but each class was asked to write it using a different writing method. The purpose was to compare the progress of children encouraged to use invented spelling with those encouraged to use traditional spelling in their creative writing.

ACKNOWLEDGEMENT

I would like to thank Dr. Albert J. Mazurkiewicz (Chairperson of the Department of Communication Sciences at Kean College) for his assistance in helping me through this paper.

DEDICATION

I dedicate this paper to my husband, Thomas E. Nicholson, Jr., and my parents, Joseph and Filomena Scuderi, for all the support they have given me to help me achieve my goal.

TABLE OF CONTENTS

		Page Number
I.	Abstract	ii
II.	Acknowledgement	iii
III.	Dedication	vi
IV.	List of Table	v
V.	The Effect of Invented Spelling on Running Word Counts in Creative Writing	
	Introduction	1
	Hypothesis	3
	Instructional Procedures	3
	Definitions	4
	Specific Procedures	5
	Results	6
	Conclusions and Implications	7
VI.	The Effect of Invented Spelling on Running Word Counts in Creative Writing: Related Literature	9

VII. References 34

VIII. Appendices

Appendix A Experimental Group Raw Score 37

Appendix B Control Group Raw Score 38

List of Table

I. Mean, Standard Deviation, and t Test Results of Word Counts Between the Samples 6

There has been a growing body of literature on spelling development and the interrelatedness of writing and reading. Many accounts of children's success in learning to write by inventing their own spelling either before or simultaneously with learning to read have been reported by Bissex (1980), Chomsky (1971,1979), Clay (1975), Hauser (1982) and Clarke (1988) among others. Children who use inventive spelling as a beginning have been shown to gradually adopt appropriate symbols for sounds and to progress to traditional spelling as they are exposed to and become aware of conventional written language (Beers, 1980; Gentry, 1977; Henderson, 1981; Read, 1971; Clarke, 1988). Many educators encourage children to use inventive spelling because of many reports of children's success, as well as the larger movement toward increased emphasis on writing in language arts instruction.

Inventive spelling refers to children's spelling of words using symbols they associate with the sounds they hear in words they wish to write. Teachers using inventive spelling methods arrange repeated opportunities for students to generate their own representations of words, correct or

incorrect in the context of a writing passage. Inventive spelling represents an amalgamation of the learner's language experience and natural exposure to words and orthographic rules. Targeted words are embedded in contexts that typically include many words children already know how to spell. Although there is neither explicit correction of errors nor repeated practice of correct spellings, invented spelling promotes discrimination between correct and incorrect spellings as well as reinforcement of accurate spelling (Gettinger, 1993).

Traditional spelling is the act of spelling conceptualized as a procedural task in which students are required to focus on, discriminate and consistently reproduce letters of words in proper order (Doyle, 1983). It is a highly structured, teacher-controlled environmental contintgencies designed to strengthen accurate production of written words (Gettinger, 1993). The words are usually presented in lists independent of content. When writing, the errors get explicit corrective feedback to focus the students' attention to the word and to facilitate discrimination between errors and correct spellings. The feedback is

followed by the students' correction of errors.

By being exposed to both types of spelling instruction a question comes to mind: Will the use of inventive spelling encourage children to write with more creativity?

Hypothesis

The intent of this study is to compare the progress of children encouraged to use invented spelling with those encouraged to use traditional spelling in their creative writing. It is hypothesized that children who are encouraged to write with inventive spelling will not produce more elaborate, i.e. longer, creative writing samples when compared to those children encourage to write using the traditional spelling method.

Instuctional Procedures

At the beginning of the 1995-96 school year two second grade classes from a suburban school district were asked if they would participate in a study. Co-operation from the school principal and

superintendent were given. Parents were also asked permission to have their child participate in the study. The children who participated had average intelligence and came from middle class homes.

The classroom teachers each have different styles of teaching, but teach the same weekly spelling list from a spelling text. The control sample was taught through a traditional teaching style. The experimental sample was taught by a whole language method. Also in the experimental sample, inventive spelling is encouraged with creative writing. The control sample used a conventional spelling method in creative writing.

Definitions

Inventive spelling is the act of forming words by writing letters for the sounds you hear.

Conventional spelling is the act of forming words properly by putting letters together.

Creative writing sample is a relaxed, informal writing with the emphasis on content rather than mechanics.

Specific Procedures

The students in each sample were given the same creative writing assignment. The control sample was told they were going to write a discriptive paragraph of what they did over the December vacation. Before beginning, the students brainstormed their ideas. Dictionaries were provided for each student. Before starting they were told to try to spell the words correctly. The students were given 15 minutes to write as much as they could about their vacation. If they had difficulty spelling a word, they used their dictionaries, spelling books or asked their teacher for help.

The experimental sample was given the same assignment. Before beginning they brainstormed their ideas and prepared to get ready to write. They were told to use inventive spelling if they had trouble spelling a word. The students were given 15 minutes to write as much as they could think of about their vacation.

The control sample, while writing, was very concerned about spelling the words correctly. The students asked each other to spell words, and were

very busy looking up words in the dictionary. Some children asked the teacher for help.

The experimental sample, while writing, seemed very relaxed. This group was very quiet and busy with the task on hand. The only movement was when the students had to get more paper to write.

Each completed story was analyzed for running word counts for statistical analysis.

Results

Table one illustrates the findings of children

Table I

Mean, Standard Deviation and t of the Word Counts

Sample	M	SD	t	SIG.
Whole Language	81.69	36.95	4.12	<.01
Traditional Writing	44.00	13.86		

encouraged to use invented spelling with those encouraged to use traditional spelling in their

creative writing. As noted in table one the use of invented spelling produced counting samples which were longer than those produced by pupils using traditional spelling. Utilizing statistical tests to determine the significance of the difference between the between the mean running word counts a t of 4.12 was computed.

Conclusions and Implications

It would appear that the use of inventive spelling helped the students in the experimental sample produce a lengthier writing sample when compared to children using the traditional spelling method. The students who use inventive spelling wrote more words than the traditional spelling approach students. It was noted that the invented spelling stutents were more relaxed, not concerned with spelling every word correctly, and willing to take risks. Their ideas appeared to flow more easily not constrained by spelling conventions.

Students who use the traditional spelling method appear to be more concerned with spelling every word correctly and find themselves inhibited

in expressing themselves. This could cause students ideas to be stifled. Students can even forget their train of thought while looking up a word to spell.

Based on the above, the hypothesis of the study was rejected. The use of invented spelling appears to have value in producing more elaborate, that is, longer, stories and should be more widely used.

The Effect of Invented Spelling on Running Word Counts in Creative Writing: Related Literature

The research of Chomsky (1971) and Read (1971) initiated an expansive burst of interest in inventive spelling, or as it is alteratively termed "invented spelling." Their work has resulted in a growing body of literature on spelling development and the interrelatedness of writing and reading. Descriptive accounts of children's success in learning to write by inventing their own spelling either before or simultaneously with learning to read have been reported by many. Children who use invented spelling in the beginning are gradually shown to adopt appropriate symbols for sounds to progress to traditional spelling as they are exposed to and become aware of conventional written language (Beers 1980, Gentry 1977, Henderson 1981, Read 1971). Educators encourage children to use inventive spelling since many reports indicate children's success in writing in language arts instruction when they use this method (Clarke 1988).

Carol Chomsky brought a linguistic's perspective to the observation of preschoolers' early attempts at spelling. Chomsky noted that children show spontaneous interest in creating words long before they can read. Allowing and

encouraging such invented spelling is a natural beginning step in learning to read and should precede instruction in recognizing words written by others (Wood 1982). Chomsky (1971) says it is far easier to encode or create words than to decode them or read them back. If young children's experiences with print are largely limited to their own phonetic creations, it stands to reason that they will not develop a true concept of what reading is, much less any proficiency at reading standard print. In encouraging inventive spelling, the teacher introduces the child to the notion that the written word grows from his or her own consciousness. The feeling of the control of print as a creative medium positively influences children's self concepts, attitudes, and motivation toward the world of print (Chomsky 1971, Wood 1982).

Contributors to the literature on invented spelling seem to be in general agreement that increasing audience awareness and acquisition of sight vocabulary, accompanied by extensive writing experiences, lead children to affect an easy transition to standard spelling (Wood 1982). Clay (1975) points out that writing focuses children's

attention on specific details of words which include the separate letter, the sounds, and the sequence of letters. This awareness eventually contributes to accuracy of visual inspection of words in reading, as well as the accurate visual memory of word forms, which is essential for spelling competency.

The act of spelling is conceptualized as a procedural task in which students are required to focus on, discriminate, and consistently reproduce letters of words in proper order (Doyle, 1983). Gettinger (1993) believes "children's spelling success is attributed primarily to the use of highly structured, teacher controlled environmental contingencies designed to strengthen the accurate production of written words."

In the beginning, early spellings that children produce independently are invented spellings. They result from children's natural encounters with print. It first starts with scribbling, then one letter spelling to initial consonants, then final and medial consonants, and then vowels. It becomes obvious that these young spellers are developing simple rules. Although their application of rules will not necessarily

conform to adult norms ("mi" for "my"), they do demonstrate a growing awareness of the patterns in the language (Strickland & Morrow, 1989). Children should be encouraged to experiment with writing and to invent their own spellings. They are aware that their spellings may not conform to adult norms, but they view themselves as young learners gradually moving toward adult standards.

Avery (1993) says there are three factors that intertwine to influence spelling. The first is writing everyday in a community on topics of choice. The amount of time we devote to writing permits practice in playing with spelling and refining the spelling words. The second influence is the proliferation of written language in the classroom. Students see and hear written language in chalkboard writing, in books that they read aloud, in writing done by peers, teachers, authors, and in charts and posters that the class creates. Children report remembering words they have seen and, as a result, are able to write them down. The third influence is teacher instruction. Even where children learn spelling naturally, the teacher should address spelling. Spelling is for readers and, therefore, before turning in a piece to be

read, it is the writer's responsibility to have as much correct spelling as possible.

Direct instruction is a method used to teach spelling. It targets and reinforces accurate reproduction of letter sequences. It also provides direct exposure to and repeated practice with isolated words in lists, independent of content, and such direct exposure is usually followed with a test, study test format.

Errors result in explicit corrective feedback to focus a student's attention to the stimulus word and to facilitate discrimination between errors and correct spellings. Feedback is followed by the student's correction of errors and repeated practice in producing correct spelling.

Children using direct instruction will write stories by copying teacher supplied printed words and words from primary dictionaries and texts, as well as words they already know how to spell. Although some invented spellings may occur, the expectations are that children will assume responsibility for correcting misspelled words. When students write everyday, they know how to spell words they use most. Research shows that a hundred words make up half of all the words we use

in writing.

Many teachers are changing to whole language teaching. Ken Goodman says that some traditional teaching practices may actually hinder language development "by breaking whole (natural) language into bite size but abstract little pieces." Whole language teaching promotes language development by emphasizing the natural purpose of language: communicating meaning (Gentry, 1982). These whole language classrooms integrate spelling and writing development with the rest of the curriculum. The teaching centers around themes, and children write on their topics. The topics are usually about what they are learning. Students write everyday. The pieces of writing are ongoing which include prewriting, drafting, revising, editing, and proofreading. In a whole language classroom, there are individual conferences and records kept to see progress.

Wood (1982) says inventive spellers are children who spontaneously spell as preschoolers. Those preschoolers share a variety of experiences involving written language and its uses which have led to high motivation to write. Chomsky explains preschool age children of linguists may well

include a high percentage of inventive spellers since these parents, with their knowledge and curiosity about language acquisition, are likely to give their children the idea that they can spell (Wood 1982). Linguists are less likely than most parents to judge "correctness" by conventional spelling standards. Instead, they give feedback based on the child's language, reasoning, and phonetic perceptions (Chomsky, 1971).

Gentry and Henderson (1978) suggest that by encouraging writing, recognizing stages of spelling development, and responding appropriately, teachers can vastly increase the number of children who engage in invented spelling. Classrooms rich with reading and writing opportunities develop children interested in writing on their own. Teachers using invented spelling arrange repeated opportunities for students to generate their own representations of words correct or incorrect in the context of a writing passage. "Stimuli are more contextual and more covert. They represent an amalgamation of the learner's language experience and natural exposure to words and orthographic rules" (Gettinger 1993). Targeted words are embedded in contexts that typically include many words children already know

how to spell. The discriminative stimuli, in effect, intersperse unknown words with known words, a strategy that has been shown to have beneficial effects on the spelling of unknown words (Brown, 1990). Feedback (exposure to correct spellings of words that occur in language activities) is provided to increase the students' ability to apply orthographic knowledge to their written work. Although it is neither explicit correction of errors nor repeated practice of correct spellings, inventive spelling promotes discrimination between correct and incorrect spellings as well as reinforcement of accurate spelling (Gettinger, 1993). Gettinger's objections to invented spelling are that children will learn that accuracy is not essential in spelling and that accuracy is potentially more important for older students than for second-grade students.

Graves (1983) states that students can place emphasis on meaning when using inventive spelling. Children can write about personal experiences, imaginative writing or "all about" books and not be constrained by correct spelling. The teacher guides children to correct spellings, recognizing different stages of invention. The teacher will

provide correct spelling of high frequency words in children's writings even though they are still in the invented state. "As children realize spellings were not variable, words were spelled one way, the lexicon took on greater importance." By the end of first grade children reach an "age of convention" and want to conform to the conventions of spelling and punctuation, realizing more and more that there are rules to the game. The teacher will conference student spellings and the children will continue to experiment with words, expanding the applied phonics to new words. As consonants and vowels become more fixed in position and more automatic, children hear hidden letters that previously had been obliterated in struggles with more dominant features in words. When spelling becomes more regularized, children note the closeness of their writing to conventional spellings in reading, in publishing their own texts, and in the works of classmates. Proficiency in reading, as well as continued practice in writing, aid the child in moving toward regularized spelling.

Wood (1982) says that inventive spelling derives from the child's ability to hear and isolate the separate speech sounds that comprise

words (phonic segmentation) in combination with a growing familiarity with letters and the sounds they represent. Gentry (1981) came up with a model which delineates five major stages of spelling development of young children. The first, or deviant spellings, consists of random orderings of whatever letters the child is able to produce from recall. There is not an awareness of letter-sound correspondence. The second stage is labeled Pre-Phonetic by Gentry. The child in this stage produces one, two, or three letter spellings which reflect a primitive concept of the alphabetic principle or linking of letter with sound. The third stage is the phonetic stage. This is where children show a far more complete understanding of letter-sound correspondences. All sound features in each word are represented according to the child's hearing and articulation. Mastery of the alphabetic principle allows the child to develop considerable fluency. The fourth stage is labeled transitional. Vowels are included in every syllable and familiar spelling patterns often are used inappropriately. Invented words are interspersed with sight words that are correctly spelled, for the child has considerable reading experience by the time this

stage is entered and has been exposed to standard spelling. The fifth and last stage is the standard spelling stage. In this stage, a majority of words are spelled correctly.

Spelling errors do not indicate lack of spelling competence but reflect the child's level of emerging or developing spelling ability (Gettinger 1993). Students are not expected to get it right immediately. Promotion of invented spelling recognizes and respects that language develops gradually and that learners need lots of time and practice to take risks, make mistakes, and do plenty of reading and writing (Routman 1993). Error-making tends to be systematic, representing incomplete knowledge or inefficient algorithms rather than the absence of spelling mastery (Gerber, 1984, 1988). Spelling success is attributed to frequent exposure to language stimuli, such as engagement in repeated reading and writing activities that are developmentally appropriate. Exposure to correctly spelled words may occasion a child's correct spelling of the words in his or her spontaneous writing (Gettinger 1993). People who are proponents of the developmental model theorize that improvement in

spelling over time occurs because students adopt more accurate response generations strategies (Gentry, 1982).

The movement to allow inventive spelling with young writers carries a concern that children will always be poor spellers. Conventional spelling develops when children write everyday in a classroom filled with language. Students express reluctance to write because they can't spell. They write their ideas by taking risks through invented spelling. An enthusiastic and accepting response encourages writers and paves the way for them to continue. Mary Ellen Giacobbe (1991) writes of her students: "I learned that all children can write and that I must value their temporary spellings as clues to their thinking. Their inventions are windows on their minds--a way they reveal their thinking about how our language works." Freedom from the concern for correct spelling enabled each child to write fluently and focus on ideas. Spelling, like all of their language development, continued to develop (Avery 1993). Inventive spelling is a worthwhile activity which will develop essential language concepts and which should be encouraged in young children. Students

are more enthusiastic and better motivated. There is more independence. The use of thematic units offers many opportunities for self discovery and exploration (Gentry 1982).

Clarke (1988) did a study that was to test the claims of proponents of invented spelling by comparing the progress of children encouraged to use invented spelling with those encouraged to use traditional spelling in their creative writing. She found that the inventive spellers group wrote on their own in November and that 85% of them wrote one or more T units. By March they wrote longer productions with a variety of words and a significantly smaller percent of spellings that were correct. This group also developed an understanding of the spelling system even though their written productions showed no increase in the percentage of correct spellings. In contrast, in Clarke's traditional spelling group, 37% out of 51 succeeded in writing in November and 49% wrote one or more T units. Children who couldn't write resorted to dictating stories to the teacher who would spell words correctly. By December, 90% of all children were able to write. In March the children used a greater percentage of above grade

level words and had more spellings at the correct stage.

When comparing the two groups, the invented spelling classes were initially better at spelling as many words as they could recall how to print. The traditional classes were better at word recognition in the flash condition. Clarke found that the inventive spelling group spent 30% of the time writing from recall compared to children using traditional spelling who spent 6% of time. Traditional spellers spent 25% using aids such as dictionaries, a reader, wall chart, or asking or telling a friend how to spell, whereas the inventive spelling group only spent 4% The traditional group spent more time talking to the teacher about writing than the inventive spellers. Finally, invented spellers usually worked on stories till time was called. The traditional spellers usually finished work before time was called.

A study in Thailand investigated the relationship of invented spelling and the writing skills among students of English as a Second Language (ESL). Subjects were twelve first grade children, in an international school. All were

taught English, including writing, by the same method. Analysis of the writing samples over the course of the year focused on patterns or changes in the spelling strategies used (conventional or invented). Other criteria reported by Lundblade (1994) included trends in spelling, proficiency and fluency of writing as measured by size and sophistication of vocabulary, output of stories, total words used, and difficulty level of grammatical structures used. Lundblade (1994) found that students who used predominantly inventive spelling in the writing process attained high scores on grade level spelling tests, wrote with a larger and more sophisticated vocabulary and used more complex sentence structures than those who used inventive spelling to a limited extent.

The classroom environment should be one that encourages children to write (Routman 1993). There should be many opportunities to write, read, and talk about words. There should be a variety of spelling references for children, such as wall charts, personal dictionaries, other children to talk to, classroom dictionaries, and print around the classroom. Also there should be a daily writing time usually as part of writing workshop or journal

writing. A core list of words should be posted so that children and parents know what must be spelled correctly. The classroom teacher should provide mini lessons to see word patterns, develop rules, and notice unusual features of words. The teacher should model the writing process and provide opportunities for the students to share and publish writing.

The earliest writing efforts from random scribble to "garble" have a clear parallel in oral language development, in the babbling stage of a baby who imitates the purposes, intonations, and sound patterns of speech before recognizing or pronouncing actual words (Wood, 1982). Wood said it is during the implicit stage of word knowledge that children are likely to begin producing what has been designated as "invented spelling." Children produce a phonic spelling of words representing their composite sounds as heard. Gradually these phonetic representations become complete. This shows the concept of "word" has grown to include a structure comprised of letters which represent speech sounds.

Students are then developing a sense of how text looks. They draw on their wealth of experience

with print, and they employ a variety of strategies to express their ideas through writing. Children who are in a print-rich environment have an advantage of knowing how letters go (Strickland and Morrow, 1989). When children have frequent opportunities to explore with writing materials, they make attempts at written expression even with very limited ability to read. When young children write, the interrelationships among reading, writing, listening, and speaking are obvious. What they learn from one aspect of language arts is used to explore and develop the others. We observe their developing sense of language as systematic and rule governed and we see the direct application of that knowledge to their efforts at written expression (Strickland and Morrow, 1989).

The purpose of writing is to convey a message. Students should brainstorm by discussing topics before getting started. They like to write about their personal experiences. If topics are taken out of everyday experiences, children can respond immediately and enthusiasticly. There is no barrier to confidence because they know what to say (Hauser, 1982). When children write about events that are memorable to them, their work is often

rich in expression, showing logical sequence and clarity of thought. In a traditional spelling class, the teacher would print words on the board, and the students would discuss what to write about and put details in the story. In an inventive spelling class, they would discuss what to write about but not put words on the board.

While writing in an inventive spelling classroom, the teachers will circulate and encourage efforts made by their students. They discuss ideas with the class and discourage erasing. Instead, they say to "just cross it out." The teachers do not spell words but tell their students to sound out and print letters that they heard. The teachers emphasize that children will not always be right in letter choices, but they tell them "it doesn't matter now." The teachers also comment on various positive aspects.

In a traditional classroom, the students use dictionaries and personal word lists. They look up words they are unsure of and they search for spelling. The students frequently consult teachers about finding words and ask how the word should be spelled. Teachers are kept busy discussing initial sounds and helping students find words. Also, the

teachers print words on chalkboards and help children, known to have difficulty, write something.

McCormick-Calkins (1986) says, "Concern for spelling competes with concern for content." When children continually interrupt themselves during writing to worry about or search for a correct spelling, they often lose track of what they wanted to say in the first place. "These interruptions produce a staccato sort of writing and they prevent writers from finding their own pace and rhythm." Whether children get the spelling word from a dictionary, a word book, a list of key words, or from their teacher makes little difference, because in each instance they interrupt writing to worry about spelling. The students should focus on content and language during the first draft. They should use dictionaries or any other means to correct spellings after drafting and revision. Concern for spelling belongs in the final stages of the writing process.

Writing is a unique composite of feeling, imagination, and experience all reflected in the diversity of topics found in any day's assignment (Hauser, 1982). Writing has varying levels of

skills. Some children show attention to organization, sequence of sentences, punctuation, and capitalization, while for others only the first letter of each word will be recognizable. Individualization exists in all aspects of the writing program, such as choice of topics, level of skills displayed, and in the extent to which the students' works require revision.

Writing includes reworking of first drafts. Depending on individual capabilities, the revisions are different. Some students can be adding a conclusion, enhancing a discription, or omitting unnessessary words, while others need help composing a simple sentence. "No matter how simple a revision, the student begins to understand that words and sentences are pliable; that adding, deliting, changing and experimenting result in a better end-product" (Hauser, 1982). When students write, there should be enough information for the audience to understand.

There are many behaviors that influence a student's writing. One type of behavior includes the child centered activities when children are not writing. The following constitute such activities: talking to a friend; looking for a pencil, eraser,

or word list; sitting, thinking and staring; sitting and playing; erasing; rereading; drawing and coloring. Another type of behavior includes teacher centered activities when the childrens' attention is directed toward the teacher. Such activities incorporate the student's waiting for the teacher's help, the student's listening to the teacher talk to another child (thereby interrupting his own work), and talking to the teacher. Other behavior types that influence writing are aided and non-aided spelling. Aided is when a student asks or tells friends how to spell; when the student uses a dictionary, word bank, or text; or when the student uses a wall chart or chalkboard. Unaided is where a student writes from recall. Other behaviors might include the student leaving the desk, the student finishing and waiting for others, or finishing and doing other things.

When writing, students need to concentrate on information retrieval, rehearsal, the sequence of data toward meaning, and listening to the parts in relation to the main idea of the piece (Graves, 1983). Spelling is one process in the midst of others when a child composes. Children who hear for years that they don't know how to write and that

they can't spell become discouraged and learn to hate to write. Some students are conditioned by the red-lined first draft, so they are afraid to make spelling errors and are blocked by the lack of safe spelling. Many times if a student can't spell a key word, they will change to a topic where they can spell the words.

If students are going to write freely, spelling should not be an obstacle. Hauser (1982) suggested to students to use guessing power to figure out words by filling in the unknown letters of a word with a dash, and he discovered that within a few weeks, dashes disappear. Students need to take risks with their spelling. Students will spell phonetically in their stories, sometimes inventing their own pattern. If students can read their own work to an audience, their writing has accomplished its task. Students are not afraid to experiment with ideas on their drafts, knowing that if they pick a particular story for revision, they will work out the correct spelling and punctuation with their teacher. When given an atmosphere which encourages risk-taking and allows mistakes, children start experimenting and make language work for them (Hauser, 1982). Hauser (1982) says by

taking a good look at what makes a good book enjoyable, students can transfer some of the same tactics to their own repertoire of skills.

Routman (1993) says, "When teachers interfere with childrens' writing, students may be writing more and writing more often, but much of their work is illegible, sloppy and filled with misspellings of basic words. Teachers are frustrated and parents wonder if we teach spelling at all. Children will learn to spell through immersion in reading and writing with lots of opportunities for practice and experimentation." The purpose was to free students up to write. Children who are dependent on the teacher to spell every word correctly are unable to freely express themselves. Invented spelling, which incorporates the teacher saying "Do the best you can. That's fine for now. Spell it like it sounds," allows children to concentrate on their messages without overconcern for correctness (Routman, 1993).

Routman (1993) says, "By the beginning of fourth grade almost all students were spelling a core of high frequency words correctly. While students should use invented spelling freely during primary years, we need to expect most words to be

spelled correctly as they get older. By over-attending to spelling, students may feel too constrained to write. By accepting all spelling even when we know the student can do better, we give the message spelling is not important. Everything in writing matters. We emphasize content first, but spelling, handwriting, and general legibility are also important." Teachers should keep expectations for students reasonable and high. Inventive spelling is a marvelous tool, as long as it is used properly.

Inventive spelling is a valuable technique for teaching that helps create an atmosphere in which children are willing to take risks that encourage their writing fluency and enthusiasm. However, educators can not abandon teaching the traditional spelling method. The best method is to incorporate the two and to know when it is necessary to use traditional spelling and when to use inventive spelling. More research needs to be done to demonstrate that the use of inventive spelling helps children produce more comprehensive creative writing samples.

References

Avery, Carol. "And With A Light Touch", Learning About Reading, Writing, and Teaching with First Graders, Heinemann, Portsmouth, NH (1993).

Beers, James W. "Developmental Strategies of Spelling Competencies in Primary School Children", Developmental and Cognitive Aspects of Learning to Spell: A Reflection of Word Knowledge, Newark, DE: International Reading Association, 1980.

Bissex, G. "Gyns at Work: A Child Learns to Write and Read", Cambridge, MA: Harvard University Press, (1980).

Brown, A.S. "A Review of Recent Research on Spelling", Educational Psychology Review, Vol. 2, (1990) p.365-397.

Chomsky, Carol. "Apoaching Reading Through Invented Spelling", In P. Weaver and L. Resnick (Eds.) The theory and practice of early reading (Vol. 2). Hilldale, N.J. Erlbaum Associates, (1979).

Chomsky, Carol. "Write First, Read Later", Childhood Education, 47, (March 1971) p.296-299.

Clarke, Linda K. "Invented Versus Traditional Spelling in First Graders' Writings: Effects on Learning to Spell and Read", Research in the Teaching of English, Vol. 22, No. 3, (Oct. 1988) p. 281-309.

Clay, Marie M. "What Did I Write?", Exeter, NH: Heinemann Educational Books, 1975.

Doyle, W. "Academic Work", Review of Educational Research, Vol. 53, (1983) p. 159-199.

Gentry, J. "A Study of Orthographic Strategies of Beginning Readers", Unpublished docoral dissertation, University of Virginia, (1977).

Gentry, J. "From Traditional to Whole Language Teaching", Teaching K-8, (May 1987) p. 42-44.

Gentry, J. "Learning to Spell Developmentally", The Reading Teacher, Vol. 34, (Jan. 1981) p. 378-381.

Gentry, J. and Henderson, Edmund. "Three Steps to Teaching Beginning Readers to Spell", The Reading Teacher, Vol. 31, (March 1987) p. 632-637.

Gerber, M. M.. Cognitive-Behavioral Training in the Curriculum: Time Slow Learners, and Basic Skills", In E.L. Meyen, G.A. Vergason, and R.J. Whelan (Eds), Effective Instructional Strategies for Exceptional Children, Denver, CO: Love, (1988) p. 45-64.

Gerber, M. M.. "Developmental Aspects of Learning To Spell" Acedemic Therapy, Vol. 20, (1984) p. 11-19.

Gettinger, Maribeth. "Effects of Invented Spelling and Direct Instruction on Spelling Performance of Second-Grade Boys", Journal of Applied Behavioral Analysis, Vol. 26, No. 3, (Fall 1993) p. 281-291.

Giacobbe, Mary Ellen. "A Letter to Parents About Invented Spelling", In Workshop 3: The Politics of Process, Ed. Nancie Alwell, Heinemann, Portsmouth, NH (1991).

Graves, Donald H. "Writing: Teachers and Children at Work", Heinemann, Portsmouth, NH (1983).

Hauser, Carin M. "Encouraging Beginning Writers", Language Arts, Vol. 59, No. 7, (Oct. 1982) p. 681-686.

Henderson, E. "Learning to Read and Spell. The Child's Knowledge of Words", DeKalb, IL: Northern Illinois University Press, (1981).

Jackson, Robin. "What Works In Spelling", Learning, (Sept. 1995), p. 47-52.

Lundblade, Shirley Mae. "Invented Spelling in the Writing Process: Applications for the Elementary ESL Classroom", Masters Thesis, Biola University, (May, 1994).

McCormik-Calkins, Lucy. "The Art of Teaching Writing", Heinemann, NH, (1986).

Read, C. "Pre-school Children's Knowledge of English Phonology", Harvard Educational Review, Vol. 41, p. 1-34.

Routman, Regie. "The Uses and Abuses of Invented Spelling", Instructor, (May/June-1993) p. 36-47.

Strickland, Dorthy S. and Lesley Mandel Morrow. "Young Children's Early Writing Development", Reading Teacher, Vol. 42, No. 6, (Feb. 1989) p. 426-427.

Wood, Margo. "Invented Spelling", Language Arts, Vol. 59, No. 7, (Oct. 1982) p. 707-717.

Appendix A

Experimental Group

Student	Number of words used
1	116
2	62
3	132
4	132
5	45
6	32
7	70
8	118
9	29
10	51
11	53
12	60
13	106
14	136
15	86
16	79

Appendix B

Control Group

Student	Number of words used
1	53
2	63
3	57
4	36
5	54
6	27
7	57
8	26
9	30
10	67
11	31
12	43
13	33
14	49
15	33
16	36
17	32
18	42
19	67